

Recovery Plan Action Status

Plan Name: Draft Revised Recovery Plan for the Aga or Mariana Crow (*Corvus kubaryi*)

Plan Status: Draft Revision 1

Plan Date: 11-Jan-06

Lead Agency: USFWS

Lead Office: Pacific Islands Fish And Wildlife Office

(408)
792-9400)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Mariana (=aga) Crow (<i>Corvus kubaryi</i>)	3	1.1	Maintain an active recovery team	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service	Management: Planning	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (<i>Corvus kubaryi</i>)	3	1.1.3	Establish short-term objectives for the recovery program	Ongoing Current	FY 2008		U.S. Fish and Wildlife Service, Mariana Crow Recovery Team	Management: Planning	Internal Field Assistance	
Mariana (=aga) Crow (<i>Corvus kubaryi</i>)	3	1.1.4	Review recovery plan every 5 years or as needed, and revise and update it as appropriate	Not Started			U.S. Fish and Wildlife Service, Mariana Crow Recovery Team	Management: Planning	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (<i>Corvus kubaryi</i>)	2	1.1.5	Develop and maintain aga data center	Not Started			U.S. Fish and Wildlife Service	Other	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (<i>Corvus kubaryi</i>)	2	1.2.1.2	Engage people of Guam and Rota	Not Started			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Other: Information and Education	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (<i>Corvus kubaryi</i>)	3	1.2.2.1	Increase funding agency interest in aga recovery	Ongoing Current	FY 2009		Mariana Crow Recovery Team	Other: Information and Education	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (<i>Corvus kubaryi</i>)	3	1.2.2.2	Inform other recovery groups	Ongoing Not Current	FY 2000 - FY 2004		Mariana Crow Recovery Team	Other: Information and Education	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (<i>Corvus kubaryi</i>)	3	1.2.2.3	Develop partnerships with conservation groups	Planned			U.S. Fish and Wildlife Service, Mariana Crow Recovery Team	Other	Internal Administrative, Internal Field Assistance	

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Mariana (=aga) Crow (Corvus kubaryi)	3	1.2.2.4	Demonstrate interest and respect for other management practices	Not Started			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service, Mariana Crow Recovery Team	Other	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	1.2.2.5.1	Consider safe harbor agreements	Not Started			U.S. Fish and Wildlife Service	Acquisition: Management Agreement	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	1.2.2.5.2	Establish agreements that allow research to be conducted on lands that include aga habitat	Not Started			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Other	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	1.2.3	Coordinate education and outreach	Not Started			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Other: Information and Education	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	1.3	Hire full-time experienced researcher dedicated to determining why the aga population on Rota is declining	Ongoing Current	FY 2000 - FY 2004		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Other: Administration	Contract, Internal Administrative	
Mariana (=aga) Crow (Corvus kubaryi)	3	1.3.1	Plan and conduct cooperative research at sites where aga exist on Rota and Guam	Obsolete			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service, Mariana Crow Recovery Team	Other	Internal Administrative, Internal Field Assistance	

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Mariana (=aga) Crow (Corvus kubaryi)	3	1.3.2	Involve local residents in research to the extent practical	Not Started			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands	Other: Information and Education	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	2.1	Protect recovery habitat on Rota	Planned			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Acquisition: Easement, Acquisition: Management Agreement	Internal Administrative, Internal Field Assistance	Works continues on a crow conservation area related to the agricultural homesteads.
Mariana (=aga) Crow (Corvus kubaryi)	1	2.2.1	Maintain and protect recovery habitat on Northern Guam	Ongoing Not Current	FY 1995 - FY 1999		Guam Division of Aquatic & Wildlife Resources, U.S. Fish and Wildlife Service, United States Navy , U.S. Air Force	Acquisition: Easement, Acquisition: Management Agreement, Management: Habitat Maintenance and Manipulation	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	2.2.2	Maintain and protect recovery habitat on Southern Guam	Ongoing Not Current	Prior to FY 1995		U.S. Fish and Wildlife Service, United States Navy	Acquisition: Easement, Acquisition: Management Agreement, Management: Habitat Maintenance and Manipulation	Contract, Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	2.3.1	Minimize or eliminate ungulate impacts on aga habitat when appropriate	Planned			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service, U.S. Animal and Plant Health Inspection Service, Wildlife Services (formerly Animal Damage Control), United States Navy , U.S. Air Force	Management: Habitat Maintenance and Manipulation	Contract, Internal Field Assistance	An ungulate management plan is under development for DoD lands on Guam.

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Mariana (=aga) Crow (Corvus kubaryi)	3	2.3.2	Identify and eliminate invasive plant species	Not Started			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service, United States Navy , U.S. Air Force	Management: Habitat Maintenance and Manipulation	Contract, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	2.3.3	Implement reforestation programs using native forest plant species to improve degraded areas with aga habitat	Not Started			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service, United States Navy , U.S. Air Force	Management: Habitat Maintenance and Manipulation	Contract, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	2.3.4	Conduct vegetation assessment of all areas important to aga	Planned			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Habitat Status	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	3.1.1.2	Reduce brown treesnake populations at ports and cargo holding areas on Guam	Ongoing Current	FY 2000 - FY 2004		U.S. Animal and Plant Health Inspection Service, Wildlife Services (formerly Animal Damage Control)	Management: Predator and Competitor Control	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	3.1.1.3	Conduct research to increase detection of very small brown treesnake populations	Ongoing Not Current	FY 2000 - FY 2004		U.S. Animal and Plant Health Inspection Service, Wildlife Services (formerly Animal Damage Control), U.S. Geological Survey	Research: Management Techniques	Contract, Internal Administrative, Internal Field Assistance	

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Mariana (=aga) Crow (Corvus kubaryi)	1	3.1.1.4	Initiate brown treesnake interdiction programs on Rota	Ongoing Not Current	FY 2000 - FY 2004		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service, U.S. Animal and Plant Health Inspection Service, Wildlife Services (formerly Animal Damage Control)	Management: Predator and Competitor Control	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	3.1.2	Control brown treesnakes over large areas on Guam	Not Started			U.S. Fish and Wildlife Service, U.S. Animal and Plant Health Inspection Service, Wildlife Services (formerly Animal Damage Control), United States Navy, U.S. Air Force	Management: Predator and Competitor Control	Contract, Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	3.2	Keep new invasive predators, besides brown treesnakes, from being established on Rota	Ongoing Not Current	FY 2000 - FY 2004		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Animal and Plant Health Inspection Service, Wildlife Services (formerly Animal Damage Control)	Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	3.3.1.1	Determine if rat control on Rota is necessary	Ongoing Not Current	FY 2000 - FY 2004		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Predation	Contract, Graduate Student, Internal Field Assistance	Additional night video work is needed to assess rat impacts on nesting success.
Mariana (=aga) Crow (Corvus kubaryi)	2	3.3.1.2	Pursue management registration of rodenticide	Ongoing Not Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, U.S. Animal and Plant Health Inspection Service, Wildlife Services (formerly Animal Damage Control)	Other: Regulations	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	3.3.1.3	Quantify importance of human persecution on aga	Partially Complete	FY 2010		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Other Information	Contract, Graduate Student, Internal Field Assistance	

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Mariana (=aga) Crow (Corvus kubaryi)	2	3.3.1.3	Determine how black drongos affect aga	Not Started			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Competition	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	3.3.2.1	Determine if current habitat is occupied to escape limiting factors	Not Started			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Habitat Requirements	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	3.3.2.2	Determine how territory size varies with habitat quality	Partially Complete	FY 2011		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Habitat Requirements	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	3.3.3.1	Determine juvenile, pre-breeder, and adult survivorship	Ongoing Current	FY 2008		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Demographic Studies	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	3.3.3.2	Quantify percentage of territorial birds breeding each year	Planned			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Demographic Studies	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	3.3.3.3	Determine reasons for nest abandonment	Partially Complete	FY 2009		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Predation	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.3.4	Determine nest site selection criteria & fidelity	Partially Complete	FY 2008		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Habitat Requirements	Contract, Graduate Student, Internal Field Assistance	

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Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.3.6	Determine natal dispersal	Ongoing Current	FY 2010		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Demographic Studies	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.3.7	Develop spatially-explicit model of aga populations	Planned			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Demographic Studies	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.4.1	Study aga social system	Not Started			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Other Information	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.4.2	Determine behavior options that are pursued by pre-breeders	Ongoing Current	FY 2011		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Other Information	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	3.3.4.3	Investigate effects of egg removal on individual pairs	Partially Complete	FY 2000 - FY 2004		Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Management Techniques	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.5.2	Conduct studies on foraging behavior and habitat use	Partially Complete	FY 2010		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Habitat Requirements	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.6	Bank tissue samples for possible genetic analyses	Ongoing Current	FY 2007		U.S. Fish and Wildlife Service	Research: Genetics	Contract, Graduate Student, Internal Field Assistance	

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Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.7.1	Determine diseases found in wild populations	Ongoing Not Current	FY 2007		Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Disease	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	3.3.7.2	Specify diseases exclusive to Guam and Rota	Obsolete			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Disease	Contract, Graduate Student, Internal Field Assistance	The Guam population currently consists of one individual that was translocated from Rota.
Mariana (=aga) Crow (Corvus kubaryi)	1	4.1.1	Obtain periodic estimate of number of territorial pairs on Rota	Ongoing Current	FY 2007		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Population Surveys	Contract, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	1	4.1.2	Continue and expand quarterly roadside count	Ongoing Current	FY 1995 - FY 1999		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands	Research: Population Surveys	Contract, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	4.1.3	Consider repeating the offroad counts in 2008 and at 5-year intervals	Ongoing Not Current	FY 2000 - FY 2004		Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Research: Population Surveys	Contract, Internal Field Assistance	Repeat survey planned in 2012.
Mariana (=aga) Crow (Corvus kubaryi)	2	4.2.1	Continue experimental translocations from Rota to northern Guam	Discontinued	FY 2000 - FY 2004		Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Management: Reintroduction	Internal Administrative, Internal Field Assistance	The declining population on Rota has made this recovery action unfeasible.
Mariana (=aga) Crow (Corvus kubaryi)	2	4.2.1.1	Design translocation studies determining factors limiting aga survivorship on Guam	Not Started			Guam Division of Aquatic & Wildlife Resources, U.S. Fish and Wildlife Service	Research: Management Techniques	Contract, Graduate Student, Internal Field Assistance	

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Mariana (=aga) Crow (Corvus kubaryi)	2	4.2.1.2	Design translocation studies to determine aga breeding success in presence of snakes on Guam	Not Started			Guam Division of Aquatic & Wildlife Resources, U.S. Fish and Wildlife Service	Research: Management Techniques	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	4.2.1.3	Design translocations that do not introduce or exacerbate disease problems on Guam	Not Started			Guam Division of Aquatic & Wildlife Resources, U.S. Fish and Wildlife Service	Management: Reintroduction	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	4.2.2.1	Develop site-specific implementation plans for each release site	Not Started			Guam Division of Aquatic & Wildlife Resources, U.S. Fish and Wildlife Service	Management: Planning, Management: Reintroduction	Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	4.2.3.1	Remove limiting factors for aga in southern Guam	Not Started			Guam Division of Aquatic & Wildlife Resources, U.S. Fish and Wildlife Service, U.S. Animal and Plant Health Inspection Service, Wildlife Services (formerly Animal Damage Control), United States Navy	Research: General	Contract, Graduate Student, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	4.2.3.3	Translocate aga from northern Guam and/or Rota to southern Guam	Not Started			Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Management: Reintroduction	Contract, Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	2	4.3.1.1	Monitor need to initiate captive breeding	Ongoing Current	FY 2008		Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service, Mariana Crow Recovery Team	Management: Propagation	Internal Administrative, Internal Field Assistance	

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Mariana (=aga) Crow (Corvus kubaryi)	3	4.3.1.2	Maintain contact with ongoing captive breeding efforts in Pacific	Ongoing Current	FY 2009		Guam Division of Aquatic & Wildlife Resources, U.S. Fish and Wildlife Service, Mariana Crow Recovery Team	Management: Propagation	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	4.3.1.3	Coordinate needs for captive breeding with other endangered species in Marianas	Ongoing Current	FY 2009		Guam Division of Aquatic & Wildlife Resources, Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service, Mariana Crow Recovery Team	Management: Propagation	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	4.3.2	Establish captive populations in mainland zoos to prevent species extinction	Not Started			U.S. Fish and Wildlife Service	Management: Propagation	Internal Administrative, Internal Field Assistance	
Mariana (=aga) Crow (Corvus kubaryi)	3	4.3.3	Establish wild populations on other island to prevent species extinction	Not Started			Division of Fish and Wildlife, Commonwealth of the Northern Mariana Islands, U.S. Fish and Wildlife Service	Management: Reintroduction	Contract, Graduate Student, Internal Field Assistance	